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CLAIMS

1.   A method of generating a computer readable data file representative of a mapping or partial mapping between a first and a second representation of a set of
5   concepts and associated attributes, the method comprising the steps of:

controlling a video display unit to display said first and second representations, or portions thereof, to a user;

detecting input by the user of a signal specifying a value of one or more concepts or attributes or specifying a link between two or more concepts or attributes from the first
10   and second representations;

calculating the logical implications of such specified values or links;

controlling the visual display unit to display to the user indications of the calculated logical implications of the specified values and links; and

generating a computer readable data file representative of said mapping or
15   partial mapping which includes both values and/or links specified by said user and the logical implications thereof calculated in the calculating step.

2.   A method according to claim 1 further including storing a plurality of program modules each of which performs one or more logical implication calculations, and wherein
20   the step of calculating logical implications includes accessing and executing the stored program modules, whereby the method may be easily improved by adding new program modules.

3.   A method according to claim 1 or 2 wherein one of the logical implications
25   calculated is whether the types of two attributes mapped together are the same, or are convertible from one to another by an already stored conversion function, or whether the user needs to supply a new suitable conversion function.

4.   A method according to claim 1, 2 or 3 wherein one of the logical implications
30   calculated is whether a new linkage of two attributes or concepts or a new assignment of a value to a concept or attribute is logically inconsistent with any previously made linkages or assignments.

5.   A method according to any of the preceding claims including the step of determining which concepts and attributes are not linked to other concepts or attributes and are not assigned to a fixed value and marking these as requiring user attention.

5   6.   A method according to claim 5 further including marking the mapping as complete once all concepts or attributes are detected as being either linked to other concepts or attributes or as being assigned to a fixed value or as having been assigned to an unmapped status by the user.

10   7.   A method according to any preceding claim further including:

comparing underlying attributes or sub-attributes of the linked concepts or attributes to one another in conjunction with associated mapping rules, the comparison including comparing the types of the underlying attributes or sub-attributes;

automatically forming a link to the underlying attributes or sub-attributes
15   determined to match according to the comparison step; and

controlling the visual display unit to display to the user indications of the automatically formed links.

8.   A method according to claim 7 wherein the comparison step attempts to find a
20   match between the names of the underlying attributes or sub-attributes in conjunction mapping rules stored in association with each respective parent concept or attribute.

9.   A method according to claim 8 wherein if a match between the names of a pair of underlying attributes or sub-attributes is found, the comparison step further checks the
25   types of the matched underlying attributes or sub-attributes and if the types are the same or if there is an appropriately associated conversion function available then it is determined that there is also a type match, but otherwise it is determined that there is a type-mismatch.

30   10.   A method according to claim 9 wherein if a match between the names of a pair of underlying attributes or sub-attributes is found, the comparison further checks for consistency with previous mappings between concepts, attributes and sub-attributes and designates the linkage as either consistent or inconsistent in dependence on the result.

11.   A method according to claim 10 wherein if an automatically formed link is found to be consistent but to have a type mismatch, the linkage is automatically made but the display is caused to generate an indication that there is a type mismatch.

5   12.   A method according to claim 10 or 11 wherein if a link is found to be inconsistent it is not made.

13.   Apparatus for generating a computer readable data file representative of a mapping or partial mapping between a first and a second representation of a set of
10   concepts and associated attributes, the apparatus comprising:

a display driver for controlling a video display unit to display said first and second representations, or portions thereof, to a user;

an input interface for detecting input by the user of a signal specifying a value to be assigned to one or more concepts or attributes or specifying a link between two or
15   more concepts or attributes from the first and second representations;

a processor for calculating the logical implications of such specified values or links and for generating a computer readable data file representative of said mapping or partial mapping which includes both values and/or links specified by said user and the logical implications thereof calculated in the calculating step; wherein
20   said display driver is additionally operable to control the visual display unit to display to the user indications of the calculated logical implications of the specified values and links.

14.   Apparatus according to claim 13 wherein the processor is further operable to
25   compare underlying attributes or sub-attributes of the linked concepts or attributes to one another in conjunction with associated mapping rules, the comparison including comparing the types of the underlying attributes or sub-attributes and to form automatically a link to the underlying attributes or sub-attributes determined to match according to the comparison; and wherein the display driver is additionally operable to
30   control the visual display unit to display to the user indications of the automatically formed links.

15.   Apparatus according to claim 13 or 14 further comprising an electronic data store for storing the mapping or partial mapping generated by said processor.

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16.   A computer program or programs arranged such that while it or they are executed on a computer it or they cause the computer to carry out the method of any of claims 1 to 12.

5   17.   A computer readable carrier medium carrying the computer program or programs of claim 16.

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